



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,532	07/10/2003	Bradley L. Todd	2003-IP-010070U1	1961

7590 06/28/2005

Robert A. Kent
Halliburton Energy Services
2600 South 2nd Street
Duncan, OK 73533

EXAMINER

SUCHFIELD, GEORGE A

ART UNIT	PAPER NUMBER
----------	--------------

3676

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/616,532	Applicant(s) TODD, BRADLEY L.	
	Examiner George Suchfield	Art Unit 3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 8-17 and 28-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 18-20 and 24-27 is/are rejected.
- 7) ☒ Claim(s) 4-6 and 21-23 is/are objected to.
- 8) ☒ Claim(s) 1-42 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/14/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3676

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-27, drawn to a method of treating a well, classified in class 166, subclass 278.

II. Claims 28-42, drawn to a composition, classified in class 507, subclass 213.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the composition could be used in processes other than the well treating method of the Group I invention, for example, it could be used in a surface soil stabilization or remediation process. Also, it appears the composition could be used as a thickener in a coating or plastic formulation.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. This application contains claims directed to the following patentably distinct species of the claimed invention:

A. A method of gravel packing a well, exemplified by claims 8-17.

Art Unit: 3676

B. A method of fracturing a well, exemplified by claims 18-27.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-7 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

6. During a telephone conversation with Robert A. Kent on June 22, 2005 a provisional election was made without traverse to prosecute the invention of Group I, Species B, claims 1-7 and 18-27. Affirmation of this election must be made by applicant in replying to this Office

Art Unit: 3676

action. Claims 8-17 and 28-42 stand withdrawn from further consideration by the examiner, 37

CFR 1.142(b), as being drawn to a non-elected invention.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3, 7, 18-20, 24, 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tjon-Joe-Pin et al (6,186,235) in view of Dawson et al (5,447,199).

Tjon-Joe-Pin et al (note particularly col. 2, line 63-col. 3, line 3) discloses a process of treating a subterranean formation penetrated by a wellbore comprising fracturing the subterranean formation utilizing an aqueous fracturing fluid comprising a hydratable polysaccharide polymer and a combination cross-linker and delayed breaker. Upon completion of the fracturing operation, the gelled or cross-linked fracturing fluid is broken by the delayed breaker.

Tjon-Joe-Pin et al does not disclose a xanthan biopolymer gelling agent, i.e., a xanthan gum, as the hydratable polysaccharide component, however, Dawson et al also discloses a process of fracturing a subterranean formation utilizing a fracturing fluid comprising a crosslinking agent, breaker component and a hydratable polysaccharide polymer which may comprise xanthan gum (note col. 3, lines 42-65).

Accordingly, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to utilize a xanthan gum as the hydratable polysaccharide polymer component

Art Unit: 3676

in the fracturing fluid injected in the fracturing or well treatment process of Tjon-Joe-Pin et al, as taught by Dawson et al, based upon, e.g., the relative availability and/or cost-effectiveness of xanthan gum compared to other hydratable polysaccharide polymers conventional or commercially-available in the well treatment art to which the invention pertains, as called for in independent claims 1 and 18.

As noted, the fracturing fluid utilized in Tjon-Joe-Pin et al is aqueous-based, as called for in claims 2 and 19.

Tjon-Joe-Pin et al (col. 3, lines 25-28) further discloses a polymer concentration range which encompasses the recited range of claims 3 and 20.

As per claims 8 and 24, it is deemed that the particular amount or range of cross-linker and breaker component(s) recited would have been an obvious matter of choice or design in carrying out the modified process of Tjon-Joe-Pin et al, based upon the characteristics and composition of the subterranean formation(s) actually encountered in the field and/or routine experimentation or process optimization. Moreover, it is noted that Tjon-Joe-Pin et al teaches initially determining the optimum amount of breaker to be employed in the fracturing fluid.

As per claims 25 and 27, Tjon-Joe-Pin et al (col. 3, lines 55-65) discloses that the fracturing fluid injected may further comprise a propping agent. It appears that the amount included of "about 1 to 18 pounds per gallon of fracturing fluid" encompasses applicant's range in claim 27 of "10% to about 250% by weight of water" with any difference therebetween deemed an obvious matter of choice or design based on the subterranean formation characteristics or wellbore environment actually encountered in the field and/or the result of routine experimentation for economic feasibility or process optimization.

Art Unit: 3676

9. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tjon-Joe-Pin et al (6,186,235) in view of Dawson et al (5,447,199), as applied to claim 18 above, and further in view of Terry et al (3,700,032).

Terry et al discloses a process of fracturing a subterranean formation with a thickened or gelled aqueous fracturing fluid including a proppant material comprising graded sand.

Accordingly, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to similarly employ graded sand as the proppant in the modified fracturing or well treatment process of Tjon-Joe-Pin et al, insofar as such graded sand comprises a readily available source of proppant, as taught by Terry et al (col. 6, lines 50-54), which indicates graded sand comprises "the most commonly employed proppant".

10. Claims 4-6 and 21-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

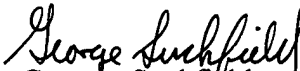
Other references cited disclose well treatment and/or subterranean formation fracturing processes employing exemplary well treatment or servicing fluids.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Suchfield whose telephone number is 571-272-7036. The examiner can normally be reached on M-F (6:30 - 3:00).

Art Unit: 3676

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


George Suchfield
Primary Examiner
Art Unit 3676

Gs
June 23, 2005